Attorney's Docket No.: 42.P18283

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	
Ioan Sauciuc, et al.	Examiner: Leonard J. Weinstein
Serial No. 10/749,359	Group Art Unit: 3746
Filed: December 30, 2003	Confirmation No. 1189
For: **METHOD AND APPARATUS FOR TWO-PHASE START-UP OPERATION**	

REPLY BRIEF

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Commissioner for Patents
Post Office Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellants submit the following Reply Brief pursuant to 37 C.F.R. §1.193(d) for consideration by the Board of Appeals and Interferences ("Board"). This Reply Brief is responsive to the Examiner's Answer (herein "the Answer") of September 3, 2009.

Corrected Appeal Brief's Arguments Stand

Appellants believe that the arguments of the Corrected Appeal Brief filed July 1, 2009 (herein "the Appeal Brief") are still valid. Thus, this document will address some of the errors and new issues raised by the Examiner's Answer.

Arguments

I. Rejection of Claim 6 as Being Anticipated by Goodson

In the Answer, page 7, final paragraph, the Examiner asserts that relocating a heat source after a pump or compressor is located would not be precluded from reading on claim 6 because claim 6 does not require a heat source to have a pre-existing permanent location, nor is there a step claimed where the heat source is located and then the pump or compressor is located. Appellants believe that this is an unreasonable interpretation of the claim since the claim does require that one item is oriented without regard to a gravitational location of another item. On the other hand, based on the Examiner's position, a claim having two items located with respect to each other would be unpatentable and uninfringeable. First, any reference having two items would read upon such a limitation, regardless of how items were taught or required to be located in the reference. Second, according to the Examiner's logic, an infringing use followed by a non-infringing use would be found non-infringing. Thus, Appellants do not believe this to be a reasonable interpretation of the claim limit noted above.

In the Answer, page 10, claim 6, item (b) the Examiner indicates that "determining a presence of a threshold amount of a fluid that is within the pump or the compressor" of claim 6 is described by the amount of hydrogen and oxygen gas required to form water using recombiner 326 of Goodson. Appellants disagree as the description of recombining hydrogen and oxygen gas in Goodson (see Goodson paragraphs 81-83, 164, and 173-177) does not describe determining a presence of a fluid, but instead simply teaches recombining all hydrogen and oxygen gas that the surfaces of catalytic recombiner 326 are continually capable of recombining (see Goodson paragraph 174; and Answer, page 10 final paragraph).

In the Answer, page 10, claim 6, item (c) the Examiner asserts that "condensing vapor of the fluid as it is present in the pump or evaporating liquid of the fluid as it is present in the compressor" of claim 6 is disclosed by the catalyst of recombiner 326 combining the hydrogen and oxygen gas and condensing them to form water. Appellants disagree since the claim requires condensing vapor of the fluid. On the other hand, Goodson describes that the hydrogen gas (e.g. not H20 gas) and oxygen gas (e.g. not H20 gas) are formed into water by the surface of the catalytic recombiner (e.g., the reaction is the catalyst surface causing the H2 and O2 gases that contact the surface to combine on the surface into liquid H2O) and that the water beads up and falls from the catalyst (see Goodson paragraphs 174 and 81). But Goodson does not describe condensing water vapor (e.g. H20 gas) of the water fluid of the pump.

II. Rejection of Claim 12 as Being Anticipated by Goodson

An argument similar to the one above for claim 6 applies to the claim 12 requirements from claim 10 (Answer page 10) of "repeating (b) and (c) until there is no longer a threshold amount of fluid in the pump or compressor." Specifically, Goodson does not teach determining a threshold amount of fluid or identifying when there is no longer a threshold amount of fluid in a pump or compressor, as required by claim 10, but instead simply continually recombines all the hydrogen and oxygen gas that recombiner 326 is able to recombine; without determining and regardless of a threshold amount of fluid (see Goodson paragraph 174; and Answer, page 10 final paragraph).

In the Answer, page 11, the Patent Office asserts that "after (d), applying power to the pump or compressor" is accomplished by pumping structure 310 of pump 300 which may or may not have already been operating when hydrogen and oxygen gas are combined to produce water. Appellants disagree and note that this is where the shortcomings of Goodson culminate and fail to provide the functionality and benefits of the claim 12. For example, without limitation thereto, by (a) orienting a pump or compressor…; (b) determining a presence of a threshold amount of fluid…; (c) condensing vapor of the fluid or evaporating liquid of the fluid…; repeating (b) and (c) until there is no longer a threshold amount of fluid in the pump or compressor; and (d) applying power to the pump or compressor after there is no longer a threshold amount of fluid in the pump or compressor; (f) and applying power to a second heat

source coupled to the pump or compressor", as required by claim 12 it is possible to overcome problems generally associated with the orientation of compressors by ensuring that all of the fluid in a vapor compressor is evaporated into a vapor using the second heat source, prior to turning the compressor on, thus allowing a vapor compressor to be located below a first heat source because liquid that is pulled by gravity down into the compressor will be evaporated prior to powering on the compressor, and thus will not damage the compressor or cause the compressor to malfunction (see at least Figs. 2, 5 and 7; and paragraphs 2-3, 6-7; 35 and 63 of the application). Goodson does not conceive of or provide such capability, but instead, as noted by the Examiner, has a pump which may or not be operating, regardless of whether there is or is not a threshold amount of fluid in the pump (see paragraph 82). Instead Goodson simply recombines all the hydrogen and oxygen gas that recombiner 326 is able to recombine, regardless of whether pump 300 is operating, and regardless of a threshold amount of fluid in the pump (see Goodson paragraph 174; and Answer, page 10 final paragraph).

III. Rejection of Claim 28 as Being Anticipated by Goodson

Appellants submit that the Patent Office's interpretation of claim 28 (Answer page 12) is unreasonable as a person skilled in the art would not reasonably interpret the liquid pump of Goodson to be a vapor compressor, as required by claim 28. The Patent office's interpretation of "a vapor compressor to force vapor through a system" would render such a limitation read on and infringed by any liquid pump or system that can be shown to have any amount of gas within the liquid. Thus, according to the Examiner, only a liquid pump or system that cannot form gas in the liquid, would not be a vapor compressor. However, as noted in Goodson, this may be impossible due to the type of liquid pump, and/or due to changes in temperature (see Goodson paragraphs 173 and 250-252). Moreover, a practitioner would not describe or use a liquid pump as a "vapor compressor" because the liquid pump is unable to provide a sufficient volume and pressure of vapor required to function as a vapor compressor (e.g., a practitioner would not use, and it may not be possible to use a liquid pump to inflate a tire).

Moreover, Goodson teaches away from having vapor in pump 300 (see paragraphs 81-83, 164 and 173-177) by criticizing, discrediting, or otherwise discouraging gas within the fluid of

pump 300 (see Depuy Spine, Inc. v Medtronic Sofoamor Danek, Inc. (CFAC Docket 2008-1240, -1253, -1401, decided June 1, 2009, page 14-15).

IV. Rejection of Claim 6 as Being Anticipated by Eastman

In the Answer, page 13, the Examiner states that the best method for orienting something without regard for a gravitational location of another piece of equipment is to avoid the effects of gravitational forces. Appellants agree and note that this statement tends to admit that such an arrangement requires the effects of gravitational forces. On the other hand, Eastman teaches away from orienting without regard to a gravitational location as required by claim 6. Instead, Eastman criticizes, discredits, or otherwise discourages orienting without regard to a gravitational location (see Depuy Spine, Inc. v Medtronic Sofoamor Danek, Inc. (CFAC Docket 2008-1240, -1253, -1401, decided June 1, 2009, page 14-15) by teaching a device designed to function the absence of gravity (see column 1, lines 27-36 and 67-68; and independent claim 1, 10 and 11).

Thus, as noted in the Appeal Brief and described above, the references do not disclose or make obvious the above noted limitations of claims 6, 12, 26 and 28.

Hence, for at least the reasons noted in the Appeal Brief and above, Appellants respectfully request that the Board overturn the Examiner's rejection of the appealed claims.

II. Conclusion and Relief

Based on the foregoing, Appellants request that the Board overturn the Examiner's rejection of all pending claims and hold that all of the claims of the present application are allowable.

Respectfully submitted,

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CERTIFICATE OF TRANSMISSION

I hereby certify that this correspondence is being submitted electronically via EFS Web to the United States Patent and Trademark Office on the date noted below.

Jessica M. Huester 2007-10-01

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